



**PROCEEDINGS**  
OF THE  
CALIFORNIA ACADEMY OF SCIENCES  
FOURTH SERIES

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MARCH 31, 1927

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**XVII**  
**REPORT OF THE PRESIDENT OF THE ACADEMY**  
**FOR THE YEAR 1926**

BY  
C. E. GRUNSKY  
*President of the Academy*

The hope entertained by the officers of the Academy that from some source or other funds would be contributed during the year for needed extensive additions to our building in Golden Gate Park, has not been realized. The Academy is still waiting for some one of means to duplicate what was done in its earlier history by James Lick and establish an endowment not only to provide housing for research work and for exhibits but also to permit of a broadening of the scope of the research work which, within the means provided, is being so well done in the several departments of the Academy under the direction of able and hardworking curators and their assistants.

It is with pride that the Academy may point to its record and there is every reason to believe that it will never lose the high rank to which the achievements of its scientific staff have raised it.

The Academy does not depend upon income from membership dues for revenue with which to carry on its activities and no attempt is therefore made to extend materially the list of

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members. This list has for some years past been maintained at 1000 to 1100.

On January first, 1926, the number stood at.....	1099
New members added during the year.....	82
Members lost by death.....	24
Members resigned.....	24
Members dropped for non-payment of dues...	57
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	105
Loss during the year.....	23
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Leaving the membership January first, 1927, at.....	1076

*Lost by Death during 1926:*

Mr. Philip E. Bowles.....	Member.....	January 20, 1926
Mr. Luther Burbank.....	Life.....	April 11, 1926
Mr. Ezra T. Cresson.....	Honorary.....	April 19, 1926
Dr. E. C. Fleischner.....	Member.....	October 11, 1926
Mr. George H. Gould.....	Member.....	January 25, 1926
Mr. B. Hendon.....	Member.....	August 18, 1926
Mr. William Hood.....	Member.....	August 27, 1926
Mr. Edward W. Hopkins.....	Member.....	January 19, 1926
Mr. Le Roy Jeffers.....	Member.....	July 25, 1926
Mr. William Pierce Johnson....	Life.....	August 24, 1926
Mr. Thomas P. Keating.....	Member.....	October 9, 1926
Mr. Augustus S. Kibbe.....	Member.....	August 21, 1926
Mrs. John G. Kittle.....	Member.....	March 25, 1926
Prof. Hermann Kower.....	Life.....	February 9, 1926
Dr. E. P. Lewis.....	Fellow.....	November 17, 1926
Mr. Geo. W. Luce.....	Member.....	July 4, 1926
Mr. Horace H. Miller.....	Member.....	May 28, 1926
Colonel Seeley W. Mudd.....	Member.....	May 24, 1926
Dr. Saxton Pope.....	Member.....	August 8, 1926
Dr. Geo. B. Somers.....	Member.....	February 20, 1926
Prof. Addison E. Verrill.....	Honorary...	December 10, 1926
Mr. Rolla V. Watt.....	Member.....	May 15, 1926
Mr. Charles G. Yale.....	Life.....	March 25, 1926

The following whose deaths occurred on the dates named were inadvertently omitted from the reports for 1923 and 1925:

Prof. Louis Falkenau.....	Life.....	August 12, 1923
Mrs. M. J. Hubbert.....	Member.....	1925
Mr. I. H. Morse.....	Member...	September 11, 1925

The membership consists of:

Patrons.....	16
Honorary members.....	22
Life Members.....	85
Fellows.....	32
Members.....	921
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Total.....	1076

The Academy carries on its list of patrons the following names:

*Living*

Mr. George C. Beckley	Mr. A Kingsley Macomber
Dr. Frank E. Blaisdell, Sr.	Mr. John W. Mailliard
Mr. William B. Bourn	Mr. Joseph Mailliard
Mr. William H. Crocker	Mr. M. Hall McAllister
Mr. Peter F. Dunne	Mr. Ogden Mills
Dr. Barton Warren Evermann	Mr. William C. Van Antwerp
Mr. Herbert Fleishhacker	Mr. Edward P. Van Duzee
Mr. Joseph D. Grant	Dr. E. C. Van Dyke

*Deceased*

Mr. William Alvord	Mr. James Lick
Mr. Charles Crocker	Mr. Alexander F. Morrison
Mr. John W. Hendrie	Mr. Amariah Pierce
Mr. Henry M. Holbrook	Mr. Ignatz Steinhart
Mrs. Charlotte Hosmer	Dr. John Van Denburgh

In the year 1926 eleven free lectures were delivered at the stated meetings of the Academy, as follows:

- JANUARY 6. The importance of Geographical Distribution in determining the Phylogenetic Relationship of Species, illustrated, by Prof. H. E. McMinn, Professor of Botany, Mills College.
- MARCH 3. Mountain Lion Hunting in California, illustrated, by Mr. Jay C. Bruce, Mountain Lion Hunter, California Fish and Game Commission.
- APRIL 7. Tunis, Algeria and Morocco, illustrated, by Mr. Ansel F. Hall, Chief Naturalist, National Park Service.
- MAY 12. The Rat, illustrated with motion pictures, by Mr. J. V. Cloos, San Francisco.

- JUNE 2. China and the Chinese, illustrated, by Mr. Isaac C. Upham, well known traveller, San Francisco.
- JULY 7. San Francisco: The World's Dream, by Mr. Charles B. Turrill, Vice President of the California Genealogical Society, San Francisco.
- AUGUST 4. The Apache Trail, illustrated with stereopticon slides and motion pictures, by Mr. Harry S. Swarth, Curator of Birds, Museum of Vertebrate Zoology, University of California.
- SEPTEMBER 1. Applied Chemistry, by Dr. Frank T. Green, Professor of Chemistry, College of Pharmacy, University of California, and Toxicologist for the Coroner, San Francisco.
- OCTOBER 6. The Useful Fishes of Japan, illustrated, by Dr. Shigelo Tanaka, Professor of Zoology, Imperial University, Tokyo, Japan.
- NOVEMBER 3. A Trip to Guatemala, illustrated, by Mr. Joseph R. Slevin, Assistant Curator of Herpetology, California Academy of Sciences.
- DECEMBER 1. Chrysanthemums, illustrated with specimens, by Miss Alice Eastwood, Curator of Botany, California Academy of Sciences, San Francisco.

The Sunday afternoon lectures at the Museum building were continued throughout the year except during the vacation months of summer. Despite the inadequacy of the temporary lecture room, the attendance at these lectures has been satisfactory. These lectures have included the following:

- JANUARY 10. The Woody Flora of the Colorado and Mohave Deserts, illustrated, by Prof. H. E. McMinn, Professor of Botany, Mills College.
- JANUARY 17. The Stars and Atoms, illustrated, by Dr. Robert G. Aitken, Associate Director Lick Observatory, Mount Hamilton.
- JANUARY 24. Some Notable Achievements in Western Irrigation Development, illustrated, by Prof. Frank Adams, Professor of Irrigation Investigations and Practice, University of California.

- JANUARY 31. Mountain Lion Hunting in California, illustrated, by Mr. Jay C. Bruce, Mountain Lion Hunter, California Fish and Game Commission.
- FEBRUARY 7. Our Friends the Bacteria, illustrated, by Dr. T. D. Beckwith, Associate Professor of Bacteriology, University of California.
- FEBRUARY 14. Pyorrhœa, what does it mean to us? illustrated, by Dr. T. D. Beckwith, Associate Professor of Bacteriology, University of California.
- FEBRUARY 21. Science as Conservation Insurance, illustrated with motion pictures and stereopticon slides, by Dr. H. C. Bryant, in charge Education, Publicity and Research, California Fish and Game Commission.
- FEBRUARY 28. Geographic Features of the Bay Region, illustrated, by Prof. Earle G. Linsley, Director Chabot Observatory.
- MARCH 7. Birds of Eagle Lake, illustrated, by Mr. Joseph Dixon, Economic Mammalogist, Museum of Vertebrate Zoology.
- MARCH 14. The Philippine Islands, illustrated, by Colonel John R. White, Superintendent, Sequoia and General Grant National Parks.
- MARCH 21. The Rat, illustrated with motion pictures, by J. V. Cloos.
- MARCH 28. African Archery, illustrated, by Dr. Saxton Pope, Associate Clinical Professor of Surgery, University of California.
- APRIL 4. Life and Mind in Relation to Structure and Mechanism illustrated, by Dr. S. S. Maxwell, Professor of Physiology, University of California.
- APRIL 11. The Teaching of Science in the Public School, by Mr. C. A. Colmore, Science Teacher, High School of Commerce, San Francisco.
- APRIL 18. The Geologic Relations of the Faunal and Floral Provinces and Subprovinces of the Philippines, illustrated, by Dr. Roy E. Dickerson, Geologist, San Francisco.

- APRIL 25. The Painted Desert, illustrated, by Dr. Charles L. Camp, Assistant Professor of Zoology, University of California.
- OCTOBER 3. Prehistoric Wall Writings in the Hava Supai Cañon in Arizona, illustrated with motion pictures, by Mr. Samuel Hubbard, Curator of Archæology, Oakland Museum.
- OCTOBER 10. Birds and Mammals of Mount McKinley National Park, illustrated, by Mr. Joseph Dixon, Economic Mammalogist, Museum of Vertebrate Zoology, Berkeley.
- OCTOBER 17. The Founding of San Francisco, by Mr. Charles B. Turrill, Vice President of the California Genealogical Society, San Francisco.
- OCTOBER 24. Food Habits of Common Birds, illustrated with stereopticon slides and motion pictures, by Dr. H. C. Bryant, Economic Ornithologist, Museum of Vertebrate Zoology, Berkeley.
- OCTOBER 31. Forest Fires and Wild Life in California, illustrated, by Mr. J. W. Nelson, Assistant District Forester, United States Forest Service, San Francisco.
- NOVEMBER 7. A Riddle of Animal Behavior: Migration and Homing of Birds and Other Animals, by Dr. S. S. Maxwell, Professor of Physiology, University of California.
- NOVEMBER 14. Termites or White Ants; one of the Most Interesting as well as Destructive Groups of Insects, illustrated, by Dr. E. C. Van Dyke, Associate Professor of Entomology, University of California.
- NOVEMBER 21. Relation of the North Pacific Trade Winds to the Climate of California, illustrated, by Mr. E. A. Beals, Consulting Meteorologist, Alameda, Calif.
- NOVEMBER 28. Through the Province of Sonora in old Mexico, illustrated, by Dr. Charles L. Camp, Assistant Professor of Zoology, University of California.
- DECEMBER 5. Glimpses of India, illustrated, by Dr. Walter K. Fisher, Director, Hopkins Marine Station.
- DECEMBER 12. Recent Developments in China, by Dr. Ng Poon Chew, Managing Editor of the local Chinese paper, Chung Sai Yat Po, San Francisco.
- DECEMBER 19. Air and Well Being, by Dr. T. D. Beckwith, Associate Professor of Bacteriology, University of California.

## LIST OF ACADEMY PUBLICATIONS IN 1926:

OCCASIONAL PAPERS No. XII.—A REVIEW OF THE GIANT MACKEREL-LIKE FISHES, TUNNIES, SPEARFISHES AND SWORDFISHES, by David Starr Jordan and Barton Warren Evermann.

## PROCEEDINGS, FOURTH SERIES

- Vol. XIV, No. 18, pp. 427-503—PALEONTOLOGY OF COYOTE MOUNTAIN, IMPERIAL COUNTY, CALIFORNIA, by G. Dallas Hanna.
- Vol. XIV, No. 19, pp. 505-520—REPORT OF THE PRESIDENT OF THE ACADEMY, FOR THE YEAR 1925, by C. E. Grunsky.
- Vol. XIV, No. 20, pp. 521-566—REPORT OF THE DIRECTOR OF THE MUSEUM FOR THE YEAR 1925, by Barton Warren Evermann.
- Vol. II, Part II, No. 18, pp. 347-357—EXPEDITION OF THE CALIFORNIA ACADEMY OF SCIENCES TO THE GALAPAGOS ISLANDS, 1905-1906. THE BEES AND ACULEATE WASPS OF THE GALAPAGOS ISLANDS, by Francis X. Williams.
- Vol. XV, No. 1, pp. 1-113—EXPEDITION TO THE REVILLAGIGEDO ISLANDS, MEXICO, IN 1925. GENERAL REPORT, by G. Dallas Hanna.
- Vol. XV, No. 2, pp. 115-193—EXPEDITION TO THE REVILLAGIGEDO ISLANDS, MEXICO, IN 1925. II. MIOCENE MARINE DIATOMS FROM MARIA MADRE ISLAND, MEXICO, by G. Dallas Hanna and William M. Grant.
- Vol. XV, No. 3, pp. 195-207—EXPEDITION TO THE REVILLAGIGEDO ISLANDS, MEXICO, IN 1925. III. NOTES ON A COLLECTION OF REPTILES AND AMPHIBIANS FROM THE TRES MARIAS AND REVILLAGIGEDO ISLANDS, AND WEST COAST OF MEXICO, WITH DESCRIPTION OF A NEW SPECIES OF TANTILLA, by Joseph R. Slevin.
- Vol. XV, No. 4, pp. 209-217—EXPEDITION TO THE REVILLAGIGEDO ISLANDS, MEXICO, IN 1925. IV. A PLIOCENE FAUNA FROM MARIA MADRE ISLAND, MEXICO, by Eric Knight Jordan and Leo George Hertlein.
- Vol. XV, No. 5, pp. 219-222—EXPEDITION TO THE REVILLAGIGEDO ISLANDS, MEXICO, IN 1925. V. THE BEMBICINI (Digger Wasps), by Charles L. Fox.
- Vol. XV, No. 6, pp. 223-239—EXPEDITION OF THE CALIFORNIA ACADEMY OF SCIENCES TO THE GULF OF CALIFORNIA IN 1921. MOLLUSCA OF THE FAMILY TRIPHORIDE, by Fred Baker.
- Vol. XV, No. 7, pp. 241-255—EXPEDITION TO GUADALUPE ISLAND, MEXICO, IN 1922. MOLLUSCAN FAUNA OF THE PLEISTOCENE OF SAN QUINTIN BAY, LOWER CALIFORNIA, by Eric Knight Jordan.

- Vol. XV, No. 8, pp. 257-261—NEW SHARKS FROM THE TEMBLOR GROUP IN KERN COUNTY, CALIFORNIA, COLLECTED BY CHARLES MORRICE, by David Starr Jordan.
- Vol. XV, No. 9, pp. 263-268—THE RELATION OF FORAMINIFERA TO THE ORIGIN OF CALIFORNIA PETROLEUM, by Thomas F. Stipp.
- Vol. XV, No. 10, pp. 269-278—SOURCES OF MATERIAL FROM WHICH PETROLEUM MAY HAVE BEEN DERIVED, by Junius Henderson.
- Vol. XV, No. 11, pp. 279-322—EXPEDITION TO THE REVILLAGIGEDO ISLANDS, MEXICO, IN 1925. VI. THE BIRDS AND MAMMALS, by M. E. McLellan.
- Vol. XV, No. 12, pp. 323-397—THE ANTIRRHINOIDEÆ-AANTIRRHINEÆ OF THE NEW WORLD, by Philip A. Munz.
- Vol. XV, No. 13, pp. 399-408—DESCRIPTION OF SEVEN ANDRENIDS IN THE COLLECTION OF THE CALIFORNIA ACADEMY OF SCIENCES, by Henry L. Viereck.
- Vol. XV, No. 14, pp. 409-464—EXPEDITION TO THE REVILLAGIGEDO ISLANDS, MEXICO, IN 1925. VII. CONTRIBUTION TO THE GEOLOGY AND PALEONTOLOGY OF THE TERTIARY OF CEDROS ISLAND AND ADJACENT PARTS OF LOWER CALIFORNIA, by Eric Knight Jordan and Leo George Hertlein.
- Vol. XV, No. 15, pp. 467-491—EXPEDITION TO THE REVILLAGIGEDO ISLANDS, MEXICO, IN 1925. VIII. LAND SHELLS OF THE REVILLAGIGEDO AND TRES MARIAS ISLANDS, MEXICO, by William Healey Dall.
- Vol. XV, No. 16, pp. 493-500—A CRITICAL INSPECTION OF THE GNAT-CATCHERS OF THE CALIFORNIAS, by Joseph Grinnell.

Title pages and Index were prepared and published as follows:

Fourth Series, Vol. II, Part I; Vol. II, Part II; Vol. XII; Vol. XIV.

#### ITEMS OF INTEREST

The Academy's income from rent during 1926 was \$92,097.78, this being the largest annual income enjoyed since the lease of the Market Street property in 1909. For 1927 a gross income from rents of about \$89,000 is expected.

Interest charges on a mortgage loan, now \$225,000, will reduce this income by \$12,375 leaving a net anticipated income for 1927 from the Commercial Building of \$76,625. Other sources of income will increase this amount to about \$81,000.



The Academy's mortgage loan has been further reduced during the past year by \$10,000, leaving \$225,000, as above noted, still due.

Mr. Joseph R. Slevin, Assistant Curator of the Department of Herpetology, visited Guatemala last summer where he remained several months and made important collections in the coast and high mountain regions. This collected material is particularly rich in the high mountain forms of salamanders and small snakes, aggregating 2277 specimens.

No important explorations were undertaken by the other departments, the curators and assistants devoting themselves to the study and arrangement of their collections and to the preparation of reports, some of which have already appeared in the Proceedings.

In addition to the Grizzly Bear Group which was rearranged, Mr. Frank Tose, the Academy's taxidermist, has prepared and installed the following small groups during 1926:

Redwood Weasel, Mountain Quail, and Mendocino Flying Squirrel, entirely new.

Tahoe Chipmunk and California Ground Squirrel rearranged by Mr. Tose.

Having been commissioned by the Council to study methods of preparation, installation, lighting, etc., as practised in the best eastern museums, Mr. Tose made a tour of the East in September and October. His observations will be reflected in his future work for the Academy.

On October 9, 1926, Director Evermann left for an extended tour of eastern museums and aquariums. Dr. Evermann's sojourn of about two months in the east will result in great benefit to the Museum and to the Steinhart Aquarium.

Many important additions have been made to the library of rare and much needed scientific works, there having been a larger budget allowance made for the purpose than ordinary.

Early in 1926, Mr. Ogden Mills added \$2,000 to former donations for the rehabilitation of the Grizzly Bear Group, making a total of \$8,000 contributed by Mr. Mills for the installation of this group. The background painted by Captain Charles Bradford Hudson and the taxidermy and general

composition effected by Mr. Frank Tose, have resulted in one of the most artistic and interesting groups in the Museum.

The continued appreciation and approval by the public of the exhibits maintained by the Academy in its museum and in the Steinhart Aquarium is evidenced by the attendance which continues large.

What has been accomplished in the several departments of the Academy will appear more fully in the reports of the Director of the Museum and of the several curators to which reference should be had. For their faithful cooperation and service as for that of all employees of both the Academy and the Aquarium I desire to express the appreciation of the Academy.

It gives me pleasure, too, to note the courtesies extended from time to time in a professional way both by Attorney Edward Hohfeld and by Architect Louis P. Hobart who have when called upon been generous with professional advice.

In closing I can only say that the Academy will continue to serve within its means and holds itself ready to extend its activities along scientific lines to an extent limited only by the funds that may be placed at its disposal.